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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Hans-Christian Swoboda

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EXAMINER

SHIN, SARAH S

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/520,604	Applicant(s) SWOBODA ET AL.	
	Examiner SARAH S. SHIN	Art Unit 3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 June 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 9, 10, 12-19, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Labuhn et al. (US 6,009,368) and further in view of Joyce et al. (US 6,560,525).

With respect to **claim 9**, Labuhn discloses a method for notifying a driver of a motor vehicle equipped with an adaptive distance and speed controller, comprising: one of activating or deactivating a prompt which informs the driver that the vehicle is coming critically close to a target object (FIG. 4 and Column 8, lines 31-32, 36-43 and 52-53);

wherein the activation or deactivation of the prompt occurs (FIG. 4 and Column 8, lines 66-67 and Column 9, lines 1-2) as a function of at least one of:

- i) a fixed minimum distance between a distance-controlled and speed-controlled vehicle and the target object (FIG. 4, block 411, where X_M is the minimum inter-vehicle spacing as described in Column 7, line 23)
- ii) a relative speed-dependent minimum distance of the distance-controlled and speed-controlled vehicle in relation to the target object (FIG. 4, block 411, where $V_R \cdot T_B$ is the

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relative speed-dependent minimum distance as described in Column 3, lines 54-56),
and

iii) a maximum vehicle deceleration producible by the distance and speed controller
(FIG. 4, block 423 where D_{MAX} is represents a deceleration limit as described in Column
9, lines 53-62).

a. Labuhn fails to disclose the prompt is a takeover prompt. However, Joyce discloses a method for notifying a driver of a motor vehicle equipped with an adaptive distance and speed controller, operating to adjust vehicle speeds to maintain a headway distance between the vehicle and a target object, comprising a takeover prompt which informs the driver that the vehicle is coming critically close to a target object and is unable to slow down to perform its operation of maintaining a headway distance (Column 3, lines 15-33; Column 5, lines 11-20). It would have been obvious to one skilled in the art at the time the invention was made to combine the teachings of Joyce with Labuhn in order to notify the driver to intervene to avoid a possibility of a collision due to the capacity/limit of the adaptive distance and speed controller during driving of the vehicle (Column 3, lines 5-10). For the purposes of the OA, the above mentioned explanation of the "prompt" as taught by Joyce will apply to all occurrences of the phrase "takeover prompt" throughout claims 10-12, 14-16, 18, 20 and 21.

With respect to **claim 10**, Labuhn discloses the prompt is at least one of: a visual display in a field of view of the driver, and an acoustic signal in an interior of the vehicle (Column 3, lines 63-65, Column 4, lines 2-7). See paragraph 2a above. Labuhn does not explicitly disclose the display is in a field of view of the driver and an acoustic signal is in an interior of the vehicle. However, it is well known that the vehicle instrument cluster or other display panel visual and/or audible alerting apparatus for operator interfacing provides visual display in a field of view of the driver and an acoustic signal in an interior of the vehicle as the operator is inside of the vehicle while operating the vehicle (Column 3, lines 63-64, Column 4, lines 5-7).

With respect to **claim 12**, Labuhn discloses activation thresholds and deactivation thresholds of the prompt are not identical (FIG. 4, Column 8, lines 18-31). See paragraph 2a above.

With respect to **claim 13**, Labuhn discloses the distance and speed controller emits and receives radar signals, with the aid of which preceding vehicles can be recognized as target objects (Column 1, lines 27-29, Column 3, lines 50-57).

With respect to **claim 14**, Labuhn discloses a device for the distance and speed control of a motor vehicle (Column 2, lines 62-64 and Column 3, lines 10-12, 50-54), comprising:

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an arrangement which outputs a prompt, informing a driver that the vehicle is coming critically close to a target object (FIG. 4 and Column 8, lines 31-32, 36-43 and 52-53), the arrangement being configured so that activation and deactivation of the takeover prompt occurs (FIG. 4 and Column 8, lines 66-67 and Column 9, lines 1-2) as a function at least one of:

- i) a fixed minimum distance between the distance- and speed-controlled vehicle and the target object (FIG. 4, block 411, where X_M is the minimum inter-vehicle spacing as described in Column 7, line 23),
- ii) a relative speed-dependent minimum distance between the distance- and speed-controlled vehicle and the target object (FIG. 4, block 411, where $V_R \cdot T_B$ is the relative speed-dependent minimum distance as described in Column 3, lines 54-56), and
- iii) a maximum vehicle deceleration producible by the distance and speed controller (FIG. 4, block 423 where D_{MAX} is represents a deceleration limit as described in Column 9, lines 53-62). See paragraph 2a above.

With respect to **claim 15**, Labuhn discloses a display device, the display device displaying the prompt in a field of view of the driver (Column 3, lines 63-65, Column 4, lines 2-7). See paragraph 2a above. Labuhn does not explicitly disclose the display device is in a field of view of the driver. However, it is well known that the vehicle instrument cluster or other display panel visual and/or audible alerting apparatus for operator interfacing provides visual display in a field of view of the driver as the operator is inside of the vehicle while operating the vehicle (Column 3, lines 63-64, Column 4,

lines 5-7).

With respect to **claim 16**, Labuhn discloses an acoustic device, the prompt being about output as an acoustic signal by the acoustic device in an interior of the vehicle (Column 3, lines 63-65, Column 4, lines 2-7). See paragraph 2a above. Labuhn does not explicitly disclose the acoustic device is in an interior of the vehicle. However, it is well known that the vehicle instrument cluster or other display panel visual and/or audible alerting apparatus for operator interfacing provides an acoustic signal in an interior of the vehicle as the operator is inside of the vehicle while operating the vehicle (Column 3, lines 63-64, Column 4, lines 5-7).

With respect to **claim 17**, Labuhn discloses a radar device, the radar device configured to emit and receive radar signals so that a preceding vehicle can be recognized as a target object (Column 1, lines 27-29, Column 3, lines 50-57).

With respect to **claim 18**, Labuhn discloses a display device, the display device displaying the takeover prompt in a field of view of the driver; and an acoustic device, the takeover prompt being about output as an acoustic signal by the acoustic device in an interior of the vehicle (See rejections of claims 15 and 16, above).

With respect to **claim 19**, Labuhn discloses a radar device, the radar device configured to emit and receive radar signals so that a preceding vehicle can be recognized as a target object (See rejection of claim 17, above).

With respect to **claim 21**, Labuhn discloses activation thresholds and deactivation thresholds of the prompt are not identical (See rejection of claim 12, above).

With respect to **claim 22**, Labuhn discloses the distance and speed controller emits and receives radar signals, with the aid of which preceding vehicles can be recognized as target objects (See rejection of claim 13, above).

3. Claims 11 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Labuhn et al. (US 6,009,368) and Joyce (US 6,560,525) as applied to claim 9 above, and further in view of Kakinami et al (US 5,230,400) and Tabata et al. (US 6,178,372).

With respect to **claim 11**, Labuhn and Joyce fail to disclose the takeover prompt is further output when the driver overrides the distance and speed controller. However, Kakinami discloses the takeover prompt is further output when the driver overrides the distance and speed controller (Kakinami Column 8, lines 11-23, 56-60, 65-67 and Column 9, line 1). It would have been obvious to one skilled in the art at the time the invention was made to combine the teachings of Kakinami with Labuhn in order to warn

the driver the controller no longer has control over the distance and speed of the vehicle and so the driver must take control and operate the vehicle properly according to the driving situation as disclosed by Tabata (Tabata Column 4, lines 40-42, Column 7, lines 45-47, Column 24, lines 54-59 and Column 31, lines 12-16). See paragraph 2a above.

With respect to **claim 20**, the takeover prompt is at least one of: a visual display in a field of view of the driver, and an acoustic signal in an interior of the vehicle, and wherein the takeover prompt is further output when the driver overrides the distance and speed controller (See rejections of claims 10 and 11, above).

Response to Arguments

4. Applicant's arguments with respect to claims 9-17 have been considered but are moot in view of the new ground(s) of rejection.

5. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the combination of the teachings of Labuhn and Joyce would have been obvious to one skilled in the art at the time the invention was made since Labuhn teaches that a driver alert is set when a vehicle is closing on the preceding vehicle (See rejection of claim 9, paragraph 2

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above) and it was known in the art that the prompt as taught by Labuhn will alert/caution the driver to takeover, and is explicitly disclosed by Joyce (See rejection of claim 9, paragraph 2a, above), since the maximum deceleration achievable by the adaptive system has been reached and more braking will be required to avoid a collision/coming too close to the preceding vehicle.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SARAH S. SHIN whose telephone number is (571)270-1812. The examiner can normally be reached on Mon-Fri, 8:00AM-5:30PM Alt. Fri, Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 571-272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

August 6, 2008
/Sarah S Shin/
Examiner, Art Unit 3661

/Thomas G. Black/
Supervisory Patent Examiner, Art Unit 3661